Remarks and Arguments

Reconsideration is respectfully requested.

Claims 1-9 are pending in the present application before this amendment. By the present amendment, claims 1, 3, and 8 have been <u>amended</u>. No new matter has been added.

In the office action (page 2), claims 1-9 stand rejected under 35 U.S.C. §112, ¶1 as failing to comply with the written description requirement.

More specifically, the examiner rejects the recitation of the term "directly" in claim 1. In response, the applicants have amended claim 1 to remove the term "directly." Accordingly, the applicants respectfully request withdrawal of the outstanding rejection.

In the office action (page 3), claim 1 stands rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 7,286,671 (Yegin) in view of U.S. Patent No. 6,930,988 (Koodli).

The applicants respectfully **disagree**.

The present invention is directed to an access router (AR) based mobile IPv6 fast handover method. More specifically, the layer 3 network of the mobile node receives layer 2 handover information, performs layer 3 movement detection, forms a Care of Address (CoA), and performs duplicate address detection (DAD). That is, the AR generates a new CoA in response to a modified Router Solicitation (RS) message from a mobile node (MN) and carries out the process of configuring a CoA and performing DAD subsequently (specification page 11, lines 12-23). As a result, the MN receives the CoA from the AR in a modified Router Advertisement (RA) and can immediately perform a binding update by using the transmitted CoA from the AR **without** an additional DAD process (specification page 12, lines 11-29).

To clarify these aspects of the present invention, claim 1 has been amended to recite, inter alia:

> -- c) when the mobile node (MN) does layer 3 movement, the new access router (AR) generating a new Care of Address (CoA) for **transmission to** the mobile node (MN) **and for use as the network interface address of the mobile node (MN)**;--.

The support for these amendments can be found at least in the specification page 12, lines 11-12. The applicants respectfully note that the above amendments do not introduce any new matter that would necessitate a new search. Previously presented claim 8 states that the CoA is transmitted to the MN in the modified RA. It is also commonly known that the CoA is used as the network interface address of a MN. Therefore, the applicants respectfully submit that the amendments made to claim 1 have been made **only** to clarify aspects of the present invention and do not add any new limitations to the claims.

The applicants respectfully note that the examiner's choice of reply in response to this paper is limited to one of the following three, because the applicants have not introduced any new grounds necessitating an additional search in this response:

(1) issuing a Notice of Allowance;

(2) issuing a non-final office action citing a new reference; and

(3) issuing an advisory action entering claims for purpose of appeal.

The examiner cites Yegi as teaching steps a) - c) and step e) of the presently claimed invention. However, Yegi **does not** teach the --new access router (AR) generating a new Care of Address (CoA)-- as asserted by the examiner. At best, Yegi **only** teaches a Router Advertisement from an Access Router that contains information "for clients to configure [a] Care of Address (CoA)" (Yegi col. 6, lines 64-65).

The invention of Yegi is not directed to an IPv6 fast handover method as in the presently claimed invention. Rather, Yegi is directed to "two-way security protocols for authenticating clients and access routers to each other" (Yegi col. 1, lines 17-20). The portions of Yegi relied upon by the examiner teach a conventional fast handover process and is described as a basis for the invention of Yegi. That is, the handover process described by Yegi is not central to the invention of Yegi.

Yegi describes a conventional handover process in which as a client leaves a subnet 150 operated by the foreign router (FR1) into a subnet 150 operated by FR2, an L2 handoff occurs (Yegi col. 6, lines 45-50). Yegi then states a registration process begins with typical Router Discovery in Mobile IPv6 (Yegi col. 6, lines 52-53). A Router Solicitation is then sent by a client to nearby routers and requests Router

Advertisements (Yegi col. 6, lines 59-61). Router Advertisements containing "information for **clients** to configure Care of Addresses (CoA)" are then sent by the routers (emphasis added) (Yegi col. 6, lines 64-65). That is, the Router Advertisements described in Yegi do **not** transmit the actual CoA for use by the client. In contradistinction, the client forms the CoA. This is explicitly stated in Yegi in col. 6, line 66 - col. 7, line 1, which states:

> "When receiving a Router Advertisement from the FR2, **the client forms a CoA based on the information in the advertisement** and configures itself with the (CoA)" (emphasis added).

This is completely different from the presently claimed invention in which the -- new access router (AR) generate[s] a new Care of Address (CoA) for **transmission to** the mobile node (MN)-- as recited in claim 1. The presently claimed invention is structured to specifically to avoid such a scenario. As a result, in Yegi, the client would have to perform DAD in order to verify the generated CoA, whereas in the presently claimed invention, the generation of the CoA and DAD is performed at the new access router so that the **received** CoA from the new AR can be immediately used by the MN without the need for performing a subsequent DAD step (specification page 12, lines 26-29).

Accordingly, there is no way in which Yegi can be construed as the FR transmitting a CoA to the client for use as in the presently claimed invention. At best, the FR of Yegi only provides "information" to the client to form a CoA, but does **not** form a CoA and transmit it to the client as in the presently claimed invention.

The examiner again cites Koodli as teaching step d) of the present invention. The examiner cites Koodli col. 7, lines 11-19 as support. However, Koodli does **not** teach the new AR performing DAD as in the presently claimed invention, but rather "perform[s] actions substantially **similar** to a duplicate address detection (DAD)" (emphasis added)(Koodli col. 7, lines 13-14). As described by Koodli, the access router 200 includes a neighbor discovery (ND) module 204 that employs a ND cache 202 to check if an entry exists that matches the receive unconfirmed address in a frame (Koodli col. 6, lines 63-65). This is **not** the same as DAD as alleged. Rather, it is "similar" but is not DAD. DAD not only checks whether an address is in use but also includes processes to

obtain another address if it finds there is a duplicate. This is evidenced in that even though the access router of Koodli performs "actions substantially similar to a (DAD)," the mobile node stills performs duplicate address detection "to elect a new addres that is not already employed on the new access router" (Koodli col.8, lines 14-17; FIG. 3).

The presently claimed invention explicitly states that DAD is performed at the new AR along with CoA generation in order to eliminate the need for the MN to perform either CoA generation or DAD (specification page 12, lines 26-29). Even if the "actions substantially similar to a DAD" of Koodli were combined with Yegi, the combination would still require actual DAD to be performed at the client. That is, "substantially similar" and actual DAD are not the same. This is especially so when Koodli states that despite the actions of the access router, DAD must still be performed that introduces yet more delay in the handover process that is eliminated in the presently claimed invention.

Accordingly, the applicants respectfully submit that neither Yegi nor Koodli, whether considered individually or in combination, teach or suggest claim 1 of the present invention since Yegi does not teach --the new access router (AR) generating a new Care of Address (CoA) for **transmission to** the mobile node (MN)-- and Koodli does not teach --performing Duplicate Address Detection (DAD) at the new access router (AR)--. Therefore, the applicants respectfully request withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter with respect to independent claim 1.

As to claims 2-9 the applicants respectfully submit that these claims are allowable at least since they depend from independent claim 1 which is now considered to be in condition for allowance for the reasons set forth above. Accordingly, the applicants respectfully request withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

For the reasons set forth above, the applicants respectfully submit that claims 1-9, now pending in this application, are in condition for allowance over the cited references. Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable

subject matter.

This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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W. William Park, Reg. No. 55,523
Ladas & Parry
224 South Michigan Avenue
Chicago, Illinois 60604
(312) 427-1300